

# MICRO GEARMOTOR MODEL DESCRIPTION

## ► Overview

This series of mechatronic products are combined by three parts: micro gear reducer or K series, electronic governor, micro motor capable of operating in reverse direction.

Through the different combinations of the three parts, the whole machine can have different performance. The whole machine can not only use the gear box to obtain any fixed speed, but also can achieve the goal of step less speed regulation through electronic speed governor. Due to have wide range of reduction, high force-energy, Convenient

to use and higher operation reliability, etc., This series of products are widely used in light industry machinery, packaging machinery, food machinery, textile machinery, cosmetics (beauty)machinery, printing equipment, instruments and various automation equipment, production lines.

The micro gear reducer of K series using high precision gear, the oil seal, O ring gear box, the lubricating grease, with the characteristics of high efficiency, low noise, long service life, small volume, high power, etc. The product has wide speed range, the ratios are 13-1:1500, and can make others according to the customer's special requirements for speed.

The micro motors are: micro AC motor(single phase:220V,110V;three phase:220V,380V),ZYT(SZ)series of micro DC motor(frame size:55-110;voltage: 12V,24V,48V,110V,220V).WZJ series of brushless DC motor.

The governor are: US/SS AC electronic governor, the step less speed governor of WK,SK series. With the characteristics of adjustable speed, no crawling phenomenon, and can

ensure the frequent positive inversion of the motor. The motor also can be equipped with a micro electromagnet brake, achieve power parking, accurately control the stop position.



## ► AC micro gearmotor item

5	I	K	60	R	GN	A	□
<b>Frame Size</b>	<b>Frame Size</b>	<b>Motor Series</b>	<b>Power</b>	<b>Speed Control Motor</b>	<b>Shaft Type</b>	<b>Voltage &amp; Poles</b>	<b>Accessories</b>
2:60mm 3:70mm 4:80mm 5:90mm 6:100mm	I:Inductin Motor R:Reversible Motor T:Torque Motor	K Series	6=6W 15=15W 25=25W 40=40W 60=60W 90=90W 120=120W 140=140W 180=180W		Round Shaft GN: Pinion Shaft GU: Pinion Shaft GA: Worm Shaft	A=1Φ110V4P B=1Φ110V2P C=1Φ220V4P D=1Φ220V2P E=3Φ220V/380V2P F=3Φ220V/380V2P W=3Φ440V4P Y=3Φ220/380V4P Z=3Φ220V/440V4P	F: Fan MElectro-magnetic Brake PTermal Protector TTerminal box FAxial flow fan

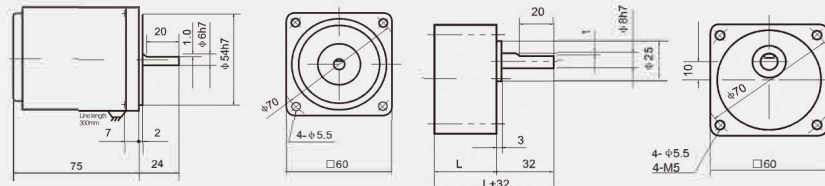
## ► Micro Standard Gear Reducer item

5	GN	30	K	B	-	H
<b>Frame Size</b>	<b>Gearhead Type</b>	<b>Ratio</b>	<b>Bearings Type</b>	<b>Body Shape</b>		<b>The installation hole type</b>
2:60mm 3:70mm 4:80mm 5:90mm 6:100mm	Normal Fortified	10X denote the decimal gearhead of gear ratio 10:1	Bearings Type Mixxes Bearings Oil Bearings (Omitted)	"B" for a square box, without flange, Don't take "B" to take ear enclosure		with"H" for a hole,The default for the threaded hole

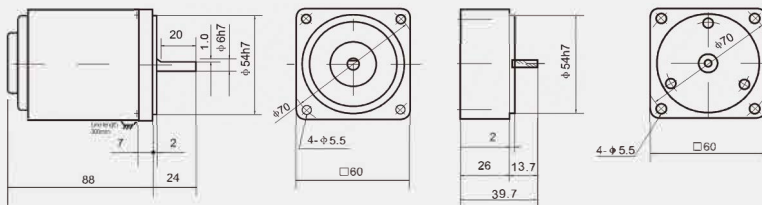


# MICRO GEARMOTOR

## 6W/10W



■ Constant Motor 2I(R)K6-A(C) 2I(R)K10A-A(C) ■ Gearbox 2GN□K 2GN3-15 L=32  
2I(R)K6GN-A(C) 2I(R)K10GN-A(C) 2GN18-250 L=42



■ Variable Motor 2IK6RGN(A)-A(C) 2RK6RGN(A)-A(C) ■ Middle Gearbox 2GN10X

### Motor performance parameters

Model		Rated Power (W)	Voltage (V)	Frequency (Hz)	Pole (P)	Rated Speed (rpm)	Starting torque (kg.cm)	Rated Torque (kg.cm)	Rated Current (A)	Capacitor (μF/VAC)	Rated Time
Ray shaft	Gear shaft										
2IK6A-A	2IK6GN-A	6	1Φ110	50/60	4	1250/1550	0.5	0.45	0.25	3.0/250	Cont
2IK6A-C	2IK6GN-C	6	1Φ220	50/60	4	1250/1550	0.5	0.45	0.12	0.8/450	Cont
2IK10A-A	2IK10GN-A	10	1Φ110	50/60	4	1250/1550	0.65	0.74	0.28	4.0/250	Cont
2IK10A-C	2IK10GN-C	10	1Φ220	50/60	4	1250/1550	0.65	0.74	0.14	1.0/450	Cont
2RK6A-A	2RK6GN-A	6	1Φ110	50/60	4	1250/1550	0.5	0.45	0.26	4.0/250	30minutes
2RK6A-C	2RK6GN-C	6	1Φ220	50/60	4	1250/1550	0.5	0.45	0.14	1.0/450	30minutes
2RK10A-A	2RK10GN-A	10	1Φ110	50/60	4	1250/1550	0.60	0.7	0.30	4.0/250	30minutes
2RK10A-C	2RK10GN-C	10	1Φ220	50/60	4	1250/1550	0.60	0.7	0.15	1.0/450	30minutes
2IK6RA-A	2IK6RGN-A	6	1Φ110	50/60	4	90~1250/90~1550	0.5	0.5	0.24	3.0/250	Cont
2IK6RA-C	2IK6RGN-C	6	1Φ220	50/60	4	90~1250/90~1550	0.5	0.5	0.12	0.8/450	Cont
2IK10RA-A	2IK10RGN-A	10	1Φ110	50/60	4	90~1250/90~1550	0.65	0.6	0.28	4.0/250	Cont
2IK10RA-C	2IK10RGN-C	10	1Φ220	50/60	4	90~1250/90~1550	0.65	0.6	0.14	1.0/450	Cont

### Gearbox Maximum torque under table(kg.cm/N.m ÷ 10)

Speed (rpm)	Gearbox Ratios																					
	50Hz 500	416	300	200	166	150	120	100	83	75	60	50	41	30	25	20	16	15	12.5	10	8.3	
60Hz	600	500	360	240	200	180	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10	
Ratio	3	3.6	5	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	
6W/10W	1.2	1.4	2	2.8	3.6	3.8	4.5	5.4	7	7.4	8	9.8	11.8	14.8	19.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5

The speed is based the synchronous motor speed reduction ratio as a benchmark calculated by dividing the value of actual speed will vary the size of the load changes in less that the values shown in 2-20%

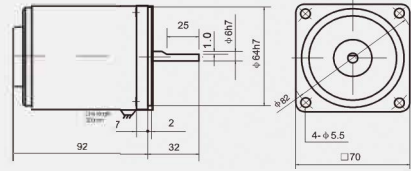
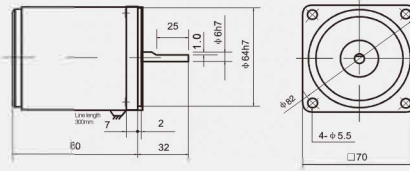
When the load torque exceeds the maximum allowable load torque gear motor, and a locked motor situation exists, please slow down box at the junction of the output shaft and load torque limit device installed to ensure the normal operation gearbox.

# 15W/20W MICRO GEARMOTOR



■ Constant Motor 3I(R)K15A-A(C) 3I(R)K20A-A(C)  
3I(R)K15GN-A(C) 3I(R)K20GN-A(C)

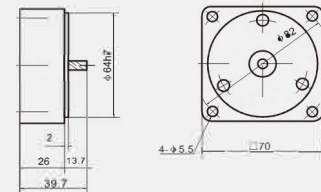
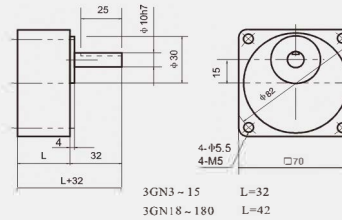
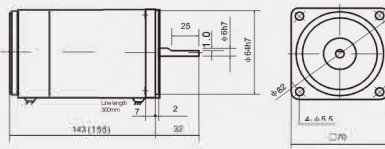
■ Variable Motor 3IK15RG(A)-A(C)  
3RK15RGN(A)-A(C)



■ Brake Motor 3IK15A-A(C)M 3IK15RA-A(C)M  
3IK15GN-A(C)M 3IK15RGN-A(C)M

■ Gearbox 3GN□K

■ Middle Gearbox 3GN□X



## Motor performance parameters

Model		Rated Power (W)	Voltage (V)	Frequency (Hz)	Pole (P)	Rated Speed (rpm)	Starting torque (kg.cm)	Rated Torque (kg.cm)	Rated Current (A)	Capacitor (μF/VAC)	Rated Time
Ray shaft	Gear shaft										
3IK15A-A	3IK15GN-A	15	1Φ110	50/60	4	1250/1550	1.1	1.18	0.31	5.0/250	Cont
3IK15A-C	3IK15GN-C	15	1Φ220	50/60	4	1250/1550	1.1	1.18	0.16	1.2/450	Cont
3IK20A-A	3IK20GN-A	20	1Φ110	50/60	4	1250/1550	1.4	1.6	0.40	7.0/250	Cont
3IK20A-C	3IK20GN-C	20	1Φ220	50/60	4	1250/1550	1.4	1.6	0.20	1.5/450	Cont
3RK15A-A	3RK15GN-A	15	1Φ110	50/60	4	1250/1550	0.95	1.1	0.36	6.0/250	30minutes
3RK15A-C	3RK15GN-C	15	1Φ220	50/60	4	1250/1550	0.95	1.1	0.19	1.5/450	30minutes
3RK20A-A	3RK20GN-A	20	1Φ110	50/60	4	1250/1550	1.3	1.5	0.42	7.0/250	30minutes
3RK20A-C	3RK20GN-C	20	1Φ220	50/60	4	1250/1550	1.3	1.5	0.21	1.8/450	30minutes
3IK15RA-A	3IK15RGN-A	15	1Φ110	50/60	4	90~1250/90~1550	1.1	1.2	0.31	5.0/250	Cont
3IK15RA-C	3IK15RGN-C	15	1Φ220	50/60	4	90~1250/90~1550	1.1	1.2	0.16	1.2/450	Cont
3IK20RA-A	3IK20RGN-A	20	1Φ110	50/60	4	90~1250/90~1550	1.4	1.5	0.40	7.0/250	Cont
3IK20RA-C	3IK20RGN-C	20	1Φ220	50/60	4	90~1250/90~1550	1.4	1.5	0.20	1.5/450	Cont

## Gearbox Maximum torque under table(kg.cm/N.m ÷ 10)

Speed (rpm)	Gearbox Models																				
	50Hz 500	416	300	200	166	150	120	100	83	75	60	50	41	30	25	20	16	15	12.5	10	8.3
60Hz	600	500	360	240	200	180	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10
Ratio	3	3.6	5	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
15W/20W	2.8	3.4	4.8	7.5	8.5	9.2	11.8	14.8	14.8	15.5	17.8	21.6	23.5	34	39.2	44	44	44	44	44	44

The speed is based the synchronous motor speed reduction ratio as a benchmark calculated by dividing the value of actual speed will vary the size of the load changes in less than the values shown in 2-20%

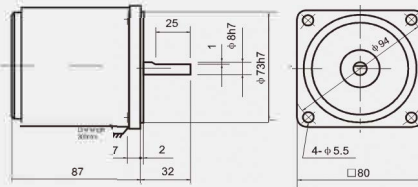
When the load torque exceeds the maximum allowable load torque gear motor, and a locked motor situation exists, please slow down box at the junction of the output shaft and load torque limit device installed to ensure the normal operation gearbox.



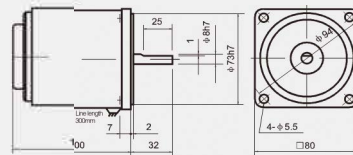
# 25W/30W MICRO GEARMOTOR



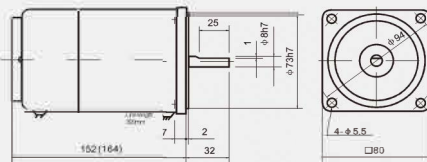
■ Constant Motor 4(R)K25A-A(C/Y) 4(R)K30A-A(C)  
4(R)K25GN-A(C) 4(R)K30GN-A(C)



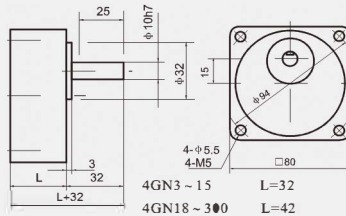
■ Variable Motor 4IK25RG(A)-A(C)  
4RK25RG(A)-A(C)



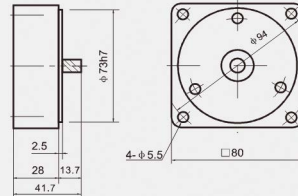
■ Brake Motor 4IK25A-A(C/Y)M 4IK25RA-A(C)M  
4IK25GN-A(C/Y)M 4IK25RG(A)-A(C)M



■ Gearbox 4GN□□



■ Middle Gearbox 4GN10X



## Motor performance parameters

Model		Rated Power (W)	Voltage (V)	Frequency (Hz)	Pole (P)	Rated Speed (rpm)	Starting torque (kg.cm)	Rated Torque (kg.cm)	Rated Current (A)	Capacitor (μF/VAC)	Rated Time
Ray shaft	Gear shaft										
4IK25A-A	4IK25GN-A	25	1Φ110	50/60	4	1300/1600	1.5	2.05	0.52	6.0/250	Cont
4IK25A-C	4IK25GN-C	25	1Φ220	50/60	4	1300/1600	1.5	2.05	0.25	1.8/450	Cont
4IK25A-Y	4IK25GN-Y	25	3Φ220/380	50/60	4	1300/1600	4.7	1.8	0.2/0.12	-	Cont
4IK30A-A	4IK30GN-A	30	1Φ110	50/60	4	1300/1600	1.9	2.3	0.65	8.0/250	Cont
4IK30A-C	4IK30GN-C	30	1Φ220	50/60	4	1300/1600	1.9	2.3	0.33	2.0/450	30minutes
4IK30A-D	4IK30GN-D	25	1Φ220	50	4	2800	1.1	0.85	0.25	2.5/450	30minutes
4RK25A-A	4RK25GN-A	25	1Φ110	50/60	4	1300/1600	1.4	1.9	0.52	8.0/250	30minutes
4RK25A-C	4RK25GN-C	25	1Φ220	50/60	4	1300/1600	1.4	1.9	0.25	2.0/450	30minutes
4RK25A-Y	4RK25GN-Y	25	3Φ220/380	50/60	4	1300/1600	4.5	1.9	0.2/0.12	-	Cont
4RK30A-A	4RK30GN-A	30	1Φ110	50/60	4	1300/1600	1.8	2.0	0.63	8.0/250	Cont
4RK30A-C	4RK30GN-C	30	1Φ220	50/60	4	1300/1600	1.8	2.0	0.31	2.0/450	Cont
4IK25RA-A	4IK25RG(A)-A	25	1Φ110	50/60	4	90~1250/90~1550	1.5	1.9	0.52	6.0/250	Cont
4IK25RA-C	4IK25RG(A)-C	25	1Φ220	50/60	4	90~1250/90~1550	1.5	1.9	0.25	1.5/450	Cont

## Gearbox Maximum torque under table(kg.cm/N.m ÷ 10)

Speed (rpm)	Gearbox Ratios																						
	50Hz	500	416	300	200	166	150	120	100	83	75	60	50	41	30	25	20	16	15	12.5	10	8.3	
60Hz	600	500	360	240	200	180	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10		
Ratio		3	3.6	5	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	
25/30W		4.5	5.4	7.6	11.8	13.8	14	18.6	22.5	24.5	26.8	34.5	41.2	49.4	11.8	69.8	78.5	78.5	78.5	78.5	78.5	78.5	78.5

The speed is based the synchronous motor speed reduction ratio as a benchmark calculated by dividing the value of actual speed will vary the size of the load changes in less than the values shown in 2-20%

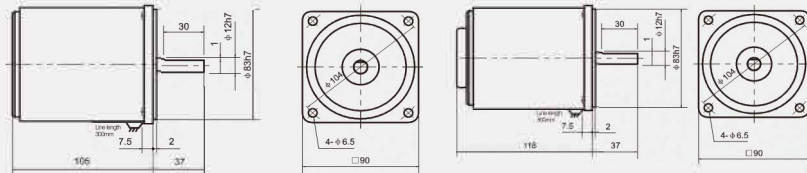
When the load torque exceeds the maximum allowable load torque gear motor, and a locked motor situation exists, please slow down box at the junction of the output shaft and load torque limit device installed to ensure the normal operation gear box.

# 40W MICRO GEARMOTOR



■ Constant Motor 5IK40A-A(C/Y) 5RK40A-A(C/Y)  
5IK40GN-A(C/Y) 5RK40GN-A(C/Y)

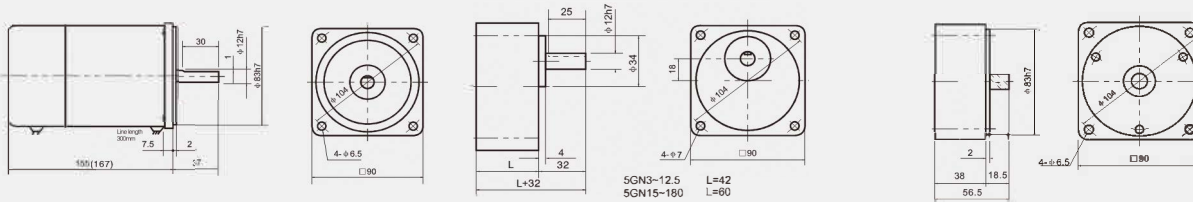
■ Variable Motor 5IK40RGN(A)-A(C)  
5RK40RGN(A)-A(C)



■ Brake Motor 5IK40A-A(C/Y)M 5IK40RA-A(C/Y)M  
5IK40GN-A(C/Y)M 5IK40RGN-A(C/Y)M

■ Gearbox 5GN□K

■ Middle Gearbox 5GN10X



## ▶ Motor performance parameters

Model		Rated Power (W)	Voltage (V)	Frequency (Hz)	Pole (P)	Rated Speed (rpm)	Starting torque (kg.cm)	Rated Torque (kg.cm)	Rated Current (A)	Capacitor (μF/VAC)	Rated Time
Ray shaft	Gear shaft										
5IK40A-A	5IK40GN-A	40	1 Φ 110	50/60	4	1300/1600	2.7	3.0	0.65	10/250	Cont
5IK40A-C	5IK40GN-C	40	1 Φ 220	50/60	4	1300/1600	2.7	3.0	0.33	2.5/450	Cont
5IK40A-Y	5IK40GN-Y	40	3 Φ 220/380	50/60	4	1300/1600	9.7	3.0	0.31/0.18	-	Cont
5RK40A-A	5RK40GN-A	40	1 Φ 110	50/60	4	1300/1600	2.5	2.8	0.65	12/250	30minutes
5RK40A-C	5RK40GN-C	40	1 Φ 220	50/60	4	1300/1600	2.5	2.8	0.33	3.0/450	30minutes
5RK40A-Y	5RK40GN-Y	40	3 Φ 220/380	50/60	4	1300/1600	9.5	2.8	0.31/0.18	-	30minutes
5IK40RA-A	5IK40RGN-A	40	1 Φ 110	50/60	4	90~1300/90~1600	1.7	3.0	0.65	10/250	Cont
5IK40RA-C	5IK40RGN-C	40	1 Φ 220	50/60	4	90~1300/90~1600	1.7	3.0	0.33	2.5/450	Cont

## ▶ Gearbox Maximum torque under table(kg.cm/N.m ÷ 10)

Speed (rpm)	50Hz	500	416	300	200	166	150	120	100	83	75	60	50	41	30	25	20	16	15	12.5	10	8.3
	60Hz	600	500	360	240	200	180	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10
Ratio		3	3.6	5	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
40W		7.4	8.6	11.8	17.8	21.6	21.8	29.4	35.5	37.2	40	54	64.8	77.8	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5

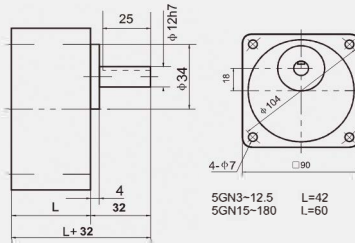
The speed is based the synchronous motor speed reduction ratio as a benchmark calculated by dividing the value of actual speed will vary the size of the load changes in less that the values shown in 2-20%

When the load torque exceeds the maximum allowable load torque gear motor, and a locked motor situation exists, please slow down box at the junction of the output shaft and load torque limit device installed to ensure the normal operation gearbox.

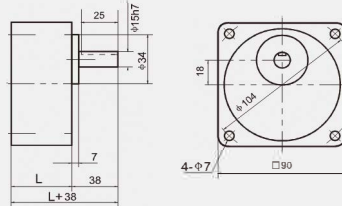
# 60W MICRO GEARMOTOR



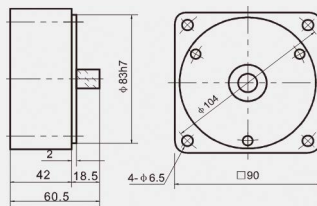
■ Gearbox 5GN□K



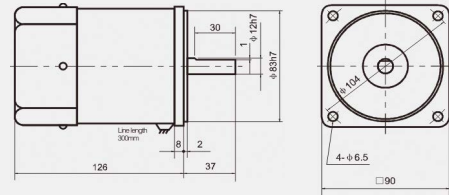
■ Gearbox 5GN□KB



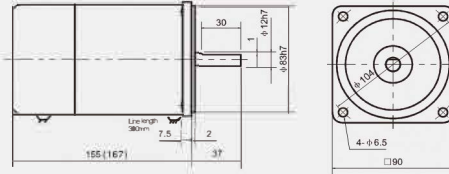
■ Middle Gearbox 5GN10X



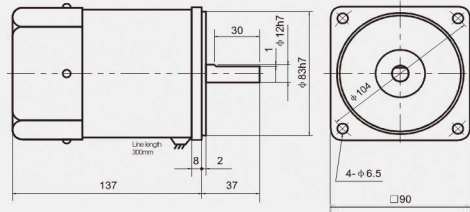
■ Constant Motor 5I(R)K60GN(GN)-A(C/Y/F)  
5I(R)K60A-A(C/Y/F)



■ Brake Motor 5IK60A-A(C/Y)M 5IK60RA-A(C)M  
5IK60GN-A(C/Y)M 5IK60RGN(GU)-A(C)M



■ Variable Motor 5I(R)K60RGN(GU)-A(C/Y/F)  
5I(R)K60RA-A(C/Y/F)



## Motor performance parameters

Model		Rated Power (W)	Voltage (V)	Frequency (Hz)	Pole (P)	Rated Speed (rpm)	Starting torque (kg.cm)	Rated Torque (kg.cm)	Rated Current (A)	Capacitor (μF/VAC)	Rated Time
Ray shaft	Gear shaft										
5IK60A-AF	5IK60GN(GU)-AF	60	1 Φ 110	50/60	4	1350/1650	3.97	4.5	0.9	15/250	Cont
5IK60A-CF	5IK60GN(GU)-CF	60	1 Φ 220	50/60	4	1350/1650	3.97	4.5	0.52	4/450	Cont
5IK60A-YF	5IK60GN(GU)-YF	60	3 Φ 220/380	50/60	4	1350/1650	9.7	4.5	0.31/0.18	-	Cont
5RK60A-AF	5RK60GN(GU)-AF	60	1 Φ 110/220	50/60	4	1350/1650	3.8	4.3	0.52	20/250	30minutes
5RK60A-CF	5RK60GN(GU)-CF	60	1 Φ 220/220	50/60	4	1350/1650	3.8	4.3	0.9	15/250	30minutes
5RK60A-YF	5RK60GN(GU)-YF	60	3 Φ 220/380	50/60	4	1350/1650	9.5	4.3	0.31/0.18	-	30minutes
5IK60RA-AF	5IK60RGN(GU)-AF	60	1 Φ 110	50/60	4	90~1300/90~1600	3.97	5.0	0.9	15/250	Cont
5IK60RA-CF	5IK60RGN(GU)-CF	60	1 Φ 220	50/60	4	90~1300/90~1600	3.97	5.0	0.52	3.5/450	Cont

## Gearbox Maximum torque under table(kg.cm/N.m ÷ 10)

Speed (rpm)	Ratio																						
	50Hz	500	416	300	200	166	150	120	100	83	75	60	50	41	30	25	20	16	15	12.5	10	8.3	
60Hz	600	500	360	240	200	180	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10		
Ratio	3	3.6	5	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180		
60W		11	13.2	17.8	26.5	31.8	33.8	4.8	55.4	65	72.5	87.3	105	147	147	147	147	147	147	147	147	147	147

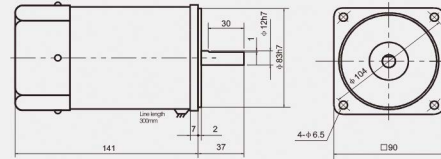
The speed is based the synchronous motor speed reduction ratio as a benchmark calculated by dividing the value of actual speed will vary the size of the load changes in less that the values shown in 2-20%

When the load torque exceeds the maximum allowable load torque gear motor, and a locked motor situation exists, please slow down box at the junction of the output shaft and load torque limit device installed to ensure the normal operation gearbox.

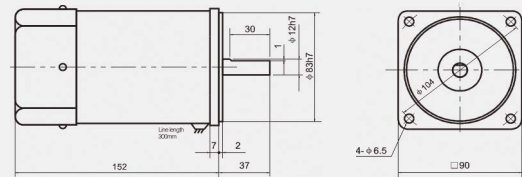
# 90W/120W MICRO GEARMOTOR



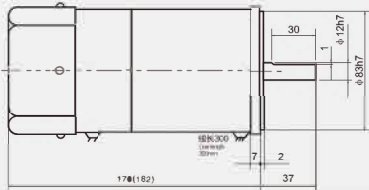
■ Constant Motor 5I(R)K90A(GN)/GU-A(C)/YF  
5IK120A(GU)-A(C)/YF



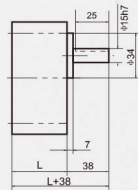
■ Variable Motor 5I(R)K90RGU(A/GN)-A(C)/YF  
5I(R)120RGU(GN)-A(C)/YF



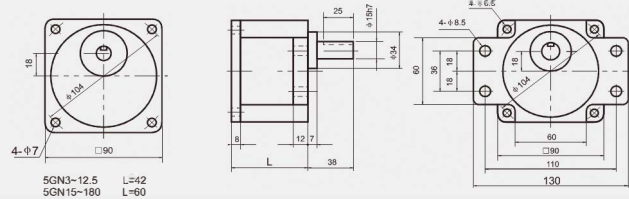
■ Brake Motor 5IK90/120A-A(C)/Y)M 5IK90/120RA-A(C)M  
5IK90/120GU-A(C)/Y)M 5IK90/120RGU-A(C)M



■ Gearbox 5GN□KB



■ Gearbox 5GU□K



## ▶ Motor performance parameters

Model		Rated Power (W)	Voltage (V)	Frequency (Hz)	Pole (P)	Rated Speed (rpm)	Starting torque (kg.cm)	Rated Torque (kg.cm)	Rated Current (A)	Capacitor (μF/VAC)	Rated Time
Ray shaft	Gear shaft										
5IK90A-AF	5IK90GN(GU)-AF	90	1Φ 110	50/60	4	1350/1650	5.8	6.7	1.2	20/250	Cont
5IK90A-CF	5IK90GN(GU)-CF	90	1Φ 220	50/60	4	1350/1650	5.8	6.7	0.58	5/450	Cont
5IK90A-YF	5IK90GN(GU)-YF	90	3Φ 220/380	50/60	4	1350/1650	24	6.7	0.66/0.38	-	Cont
5IK120A-AF	5IK120GU-AF	120	1Φ 110	50/60	4	1350/1650	6.5	8.8	1.68	25/250	Cont
5IK120A-YF	5IK120GU-YF	120	1Φ 220	50/60	4	1350/1650	6.5	8.8	0.81	6/450	Cont
5RK90A-AF	5RK90GU-AF	120	3Φ 220/3.80	50/60	4	1350/1650	29	8.8	0.74/0.43	-	Cont
5RK90A-AF	5RK90GU-AF	90	1Φ 110	50/60	4	1350/1650	5.5	6.5	1.2	25/250	30minutes
5RK90A-CF	5RK90GU-CF	90	1Φ 220	50/60	4	1350/1650	5.5	6.5	0.58	6/450	30minutes
5RK90A-YF	5RK90GU-YF	90	3Φ 220/380	50/60	4	1350/1650	23	6.5	0.66/0.38	-	30minutes
5IK90RA-AF	5IK90RAGU-AF	90	1Φ 110	50/60	4	90~1300/90~1600	5.8	7.1	1.2	20/250	Cont
5IK90RA-CF	5IK90RGU-CF	90	1Φ 220	50/60	4	90~1300/90~1600	5.8	7.1	0.58	5.0/450	Cont
5IK120RA-AF	5IK120RGU-AF	120	1Φ 110	50/60	4	90~1300/90~1600	6.5	7.5	1.68	25/250	Cont
5IK120RA-CF	5IK120RGU-CF	120	1Φ 220	50/60	4	90~1300/90~1600	6.5	7.5	0.81	7.0/450	Cont

## ▶ Gearbox Maximum torque under table(kg.cm/N.m ÷ 10)

Speed (rpm)	50Hz	500	416	300	200	166	150	120	100	83	75	60	50	41	30	25	20	16	15	12.5	10	8.3
	60Hz	600	500	360	240	200	180	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10
Ratio		3	3.6	5	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
90W/120W		16.4	19.7	27.3	41.0	49	55.0	68.0	73.9	88.7	110	123	148	177	200	200	200	200	200	200	200	200

The speed is based the synchronous motor speed reduction ratio as a benchmark calculated by dividing the value of actual speed will vary the size of the load changes in less that the values shown in 2-20%

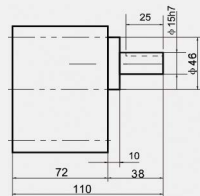
When the load torque exceeds the maximum allowable load torque gear motor,and a locked motor situation exists,please slow down box at the junction of the output shaft and load torque limit device installed to ensure the normal operation gearbox.



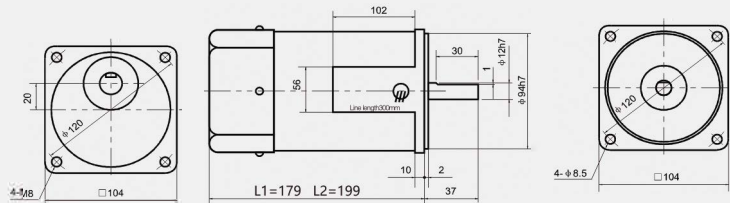
# 120W/140W/180W/250W/300W MICRO GEARMOTOR



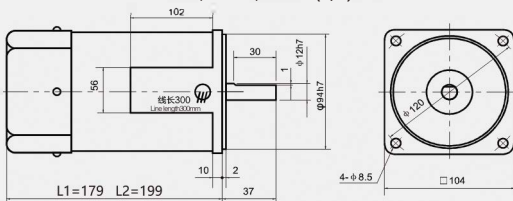
■ Motor 6GN□K



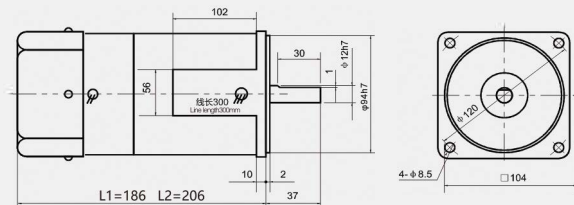
■ Constant Motor 6IK120/140/180/200A/GN-A(C/Y)F:L1  
6IK250/300A/GN-A(C/Y)F:L2



■ Variable Motor 6IK120/140/180/200RA/RGN-A(C/Y)F:L1  
6IK250/300RA/RGN-A(C/Y)F:L2



■ Brake Motor 6IK120/140/180/200A/GN-A(C/Y)MF:L1 6IK250/300A/GN-A(C/Y)MF:L2  
6IK120/140/180/200RA/RGN-A(C/Y)MF:L1 6IK250/300RA/RGN-A(C/Y)MF:L2



## Motor performance parameters

Model		Rated Power	Voltage	Frequency	Pole	Rated Speed	Starting torque	Rated Torque	Rated Current	Capacitor	Rated Time
Ray shaft	Gear shaft	(W)	(V)	(Hz)	(P)	(rpm)	(kg.cm)	(kg.cm)	(A)	(μF/VAC)	
6IK120A-AF	6IK120GN-AF	120	1φ110	50/60	4	1350/1650	9.0	8.9	1.62	25/250	Cont
6IK120A-CF	6IK120GN-CF	120	1φ220	50/60	4	1350/1650	9.0	8.9	0.81	8/450	Cont
6IK120A-YF	6IK120GN-YF	120	3φ220/380	50/60	4	1350/1650	35	8.9	0.83/0.48	-	Cont
6IK140A-AF	6IK140GN-AF	140	1φ110	50/60	4	1350/1650	9.0	11	2.35	25/250	Cont
6IK140A-CF	6IK140GN-CF	140	1φ220	50/60	4	1350/1650	9.0	11	1.2	8/450	Cont
6IK140A-YF	6IK140GN-YF	140	3φ220/380	50/60	4	1350/1650	35	11	1.12/0.56	-	Cont
6IK180/200A-AF	6IK180/200GN-AF	180	1φ110	50/60	4	1350/1650	10.02	13.0	3.0	30/250	Cont
6IK180/200A-CF	6IK180/200GN-CF	180	1φ220	50/60	4	1350/1650	10.02	13.0	1.3	10/450	Cont
6IK180/200A-YF	6IK180/200GN-YF	180	3φ220/380	50/60	4	1350/1650	40	13.0	1.44/0.83	-	Cont
6IK250/300A-AF	6IK250/300GN-AF	250/300	1φ110	50/60	4	1350/1650	2.76/2.22	2.122/1.705	7.371	40/250	Cont
6IK250/300A-CF	6IK250/300GN-CF	250/300	1φ220	50/60	4	1350/1650	2.76/2.22	2.122/1.705	3.686	12/450	Cont
6IK250/300A-YF	6IK250/300GN-YF	250/300	3φ220/380	50/60	4	1350/1650	3.61/2.90	2.122/1.705	4.631	-	Cont
6IK120RA-AF	6IK120RGN-AF	120	1φ110	50/60	4	90-1350/90-1650	9.0	7.5	1.62	2.5/250	Cont
6IK120RA-CF	6IK120RGN-CF	120	1φ220	50/60	4	90-1350/90-1650	9.0	7.5	0.81	8.0/450	Cont
6IK140RA-AF	6IK140RGN-AF	140	1φ110	50/60	4	90-1350/90-1650	9.2	8.5	2.35	25/250	Cont
6IK140RA-CF	6IK140RGN-CF	140	1φ220	50/60	4	90-1350/90-1650	9.2	8.5	1.2	8.0/450	Cont
6IK180/200RA-AF	6IK180RGN-AF	180	1φ110	50/60	4	90-1350/90-1650	10.2	9.5	3.0	30/250	Cont
6IK180/200RA-CF	6IK180RGN-CF	180	1φ220	50/60	4	90-1350/90-1650	10.2	9.5	1.3	10/450	Cont
6IK250/300RA-AF	6IK250/300RGN-AF	250/300	1φ110	50/60	4	90-1350/90-1650	41.38	31.83	7.371	40/250	Cont
6IK250/300RA-CF	6IK250/300RGN-CF	250/300	1φ220	50/60	4	90-1350/90-1650	41.38	31.83	3.686	12/450	Cont

# Micro Gearmotor Wiring and Accessories

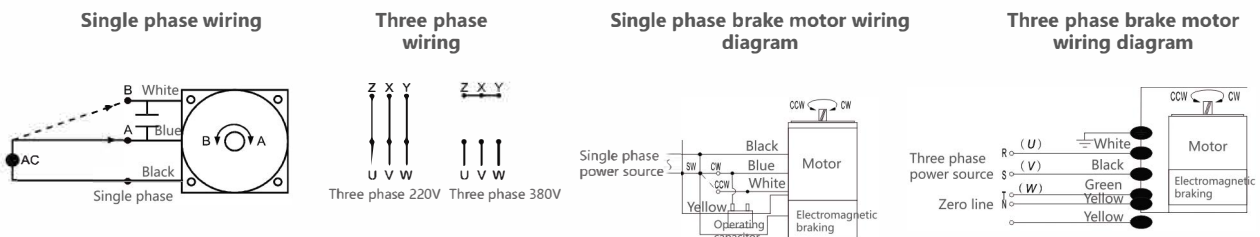
## ► Gearbox Maximum torque under table(kg.cm/N.m ÷ 10)

Speed (rpm)	50Hz	500	416	300	200	166	150	120	100	83	75	60	50	41	30	25	20	16	15	12.5	10	8.3	7.5	6
	60Hz	600	499.2	360	240	199.2	180	144	120	99.6	90	72	60	49.2	36	30	24	19.2	18	15	12	9.96	9	7.2
T		3	3.6	5	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	200	250
120W		25	31	42	64	76	85	106	127	153	169	212	255	302	424	498	637	637	637	637	637	637	637	637
140W		29	36	48.7	74.2	88.2	98.6	123	147.3	177.6	196	245.9	295.8	350.3	491.8	577.7	738.9	738.9	738.9	738.9	738.9	738.9	738.9	738.9
180/200W		41.2	51.1	69.2	105.4	125.2	140	174.6	209.2	252	278.4	349.2	420	497.5	698.4	820.3	1049.3	1049.3	1049.3	1049.3	1049.3	1049.3	1049.3	1049.3
250/300W		61.8	76.6	103.8	158.1	187.8	210	262	313.8	378	417.6	523.8	630	746.2	1047.6	1230.2	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9

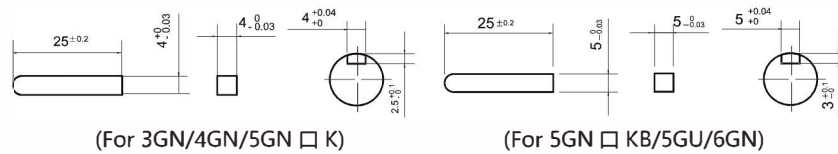
The speed is based the synchronous motor speed reduction ratio as a benchmark calculated by dividing the value of actual speed will vary the size of the load changes in less that the values shown in 2-20%

When the load torque exceeds the maximum allowable load torque gear motor, and a locked motor situation exists, please slow down box at the junction of the output shaft and load torque limit device installed to ensure the normal operation gearbox.

## ► The wiring diagram

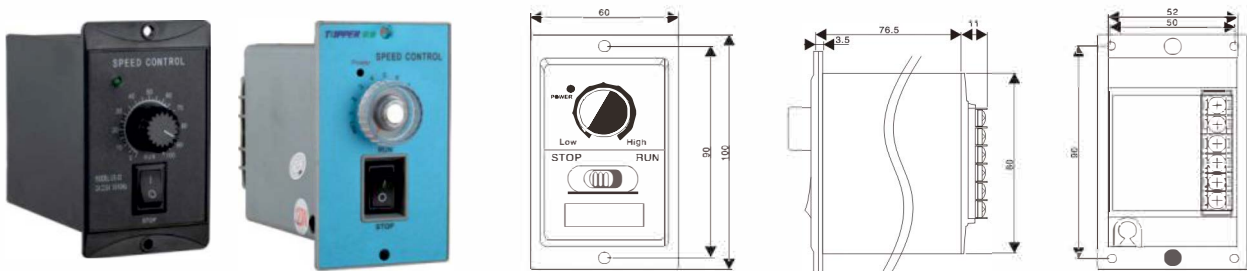


## ► Key & Keyway



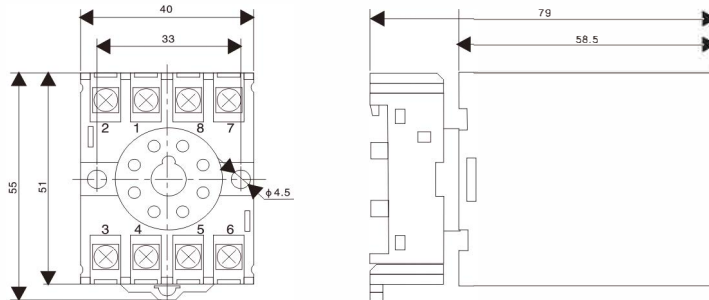
## ► Motor Speed Controller Selected

US	5	90	02
<b>Model</b>	<b>Model</b>	<b>Power</b>	<b>Voltage</b>
US: combination SS: The separation type	2:60mm 3:70mm 4:80mm 5:90mm 6:100mm	06=6W 90=90W 15=15W 120=120W 25=25W 140=140W 40=40W 180=180W 60=60W	01=1Φ110V 02=1Φ220V



# Micro Gearmotor and Accessories

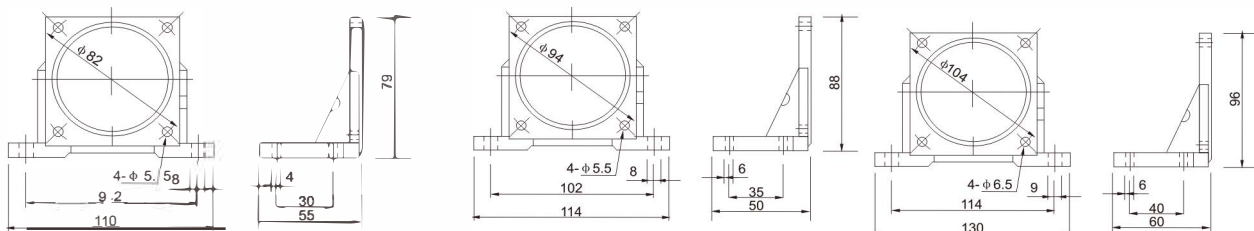
## SS Separation Type Speed Controller



## List of Speed Governor Characteristics

Parameter Model	Voltage (V)	Frequency (Hz)	Max Current (A)	Power (W)	Speed Range (r/min)	Speed Changer	Speed Stability	Ambient Temperature
US(X)□01 US(X)□02	110V ± 10% 220V ± 10%	50/60	5	6~180	90~1350 90~1650	3%	(0.5)	-10°C~+50°C
SS02 SS02	110V ± 10% 220V ± 10%	50/60	5	6~90	90~1350 90~1650	3%	(0.5)	-10°C~+50°C

## L Type Mounting Bracket



PLA-3N(for □ 70mm)

PLA-4N(for □ 80mm)

PLA-5N(for □ 90mm)

## MODEL DESCRIPTION OF MOTOR AND REDUCER

### Motor

5   1   K   40   R   G   N   -   C   T  
 ①   ②   ③   ④   ⑤   ⑥   ⑦   ⑧   ⑨

①	Motor Frame Size	4:80mm 5:90mm 6:104mm
②	Motor Type	I: Induction Motor R: Reversible Motor
③	Series	K: K Series
④	Output Power(W) [e. g.]	40:40W
⑤	The Suffix "-R" after the Output Power Means Speed Adjustable Motor.	
⑥	Motor Shaft Type	GN: GN Type Pinion Shaft GU: GU Type Pinion Shat
⑦	Voltage- Poles	A: Single-Phase100V 110V 50/60Hz 4P C: Single-Phase220V 230V 50/60Hz 4P E: Single-Phase110V、120V60Hz 4P H: Single-Phase220V、230V 60Hz 4P S: Three-Phase200/220/230V 50/60Hz 4P S3:Three-Phase380/415V 50/60Hz 4P
⑧	T: Terminal Box Type F: W/ Fan FF: W/ Forced Fan M: Power Off Activated Type Electromagnetic Brake Motor P: Thermal protector"	

Notes: The capacitor may be different of a si gle phase motor with same power code and differe nt voltage. Please check nameplate first.

### Reducer

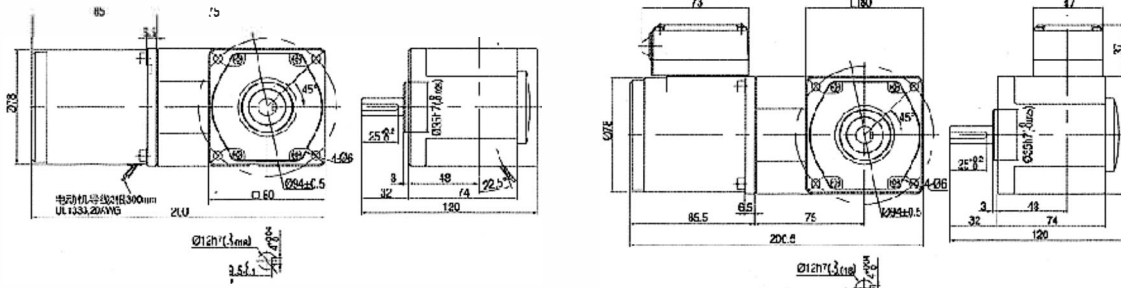
5   GN   50   RH  
 ①   ②   ③   ④

①	Gearhead Frame Size4:80mm 5:90mm 6:104mm	
②	Gear Type GN: GN Type Gear GU: GU Type Gear	
③	Gear Ratio e. g.50: Reduction Ratio: 50	
④	Type of output shaft	RH: Hollow worm shaft RA: Worm output shaft RC: Spiral be vel hollow shaft RT: Spiral be vel output shaf



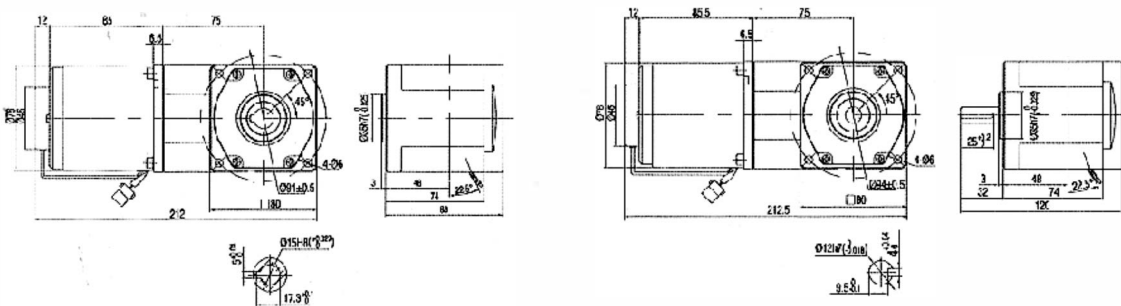
## Induction, reversible Type Drawing

4IK25GN-A/4GN□RT    4IK25GN-C/4GN□RT    4IK25GN-AT/4GN□RT    4IK25GN-CT/4GN□RT  
 4IK25GN-E/4GN□RT    4IK25GN-H/4GN□RT    4IK25GN-S/4GN□RT    4IK25GN-ET/4GN□RT    4IK25GN-HT/4GN□RT    4IK25GN-ST/4GN□RT



## Speed Control Type Drawing

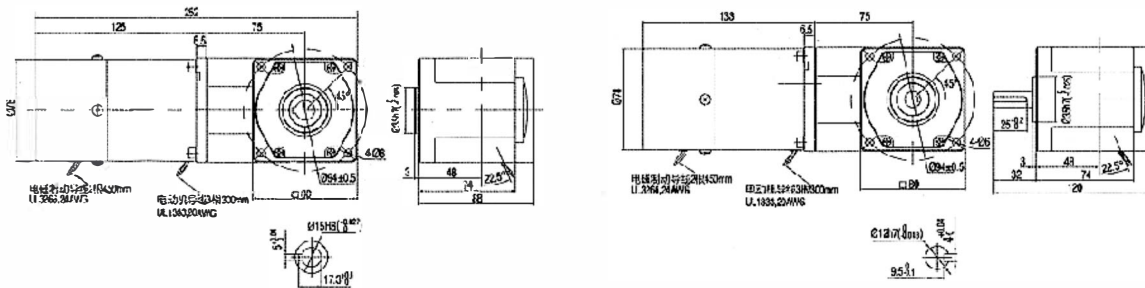
4IK25GN-A/4GN□RC    4IK25GN-C/4GN□RC    4IK25GN-A/4GN□RT    4IK25GN-C/4GN□RT  
 4IK25GN-E/4GN□RC    4IK25GN-H/4GN□RC    4IK25GN-E/4GN□RT    4IK25GN-H/4GN□RT



Note: The connector is for FTG standard speed controller

## Brake Type Drawing

4IK25GN-AM/4GN□RC    4IK25GN-CM/4GN□RC    4IK25GN-AM/4GN□RT    4IK25GN-CM/4GN□RT  
 4IK25GN-EM/4GN□RC    4IK25GN-HM/4GN□RC    4IK25GN-EM/4GN□RT    4IK25GN-HM/4GN□RT



# AC ANGEL GEAR MOTOR

**40W**  
**90mm**



### Gear Motor-torque Table

- Gearhead and mid- gearbox can be sold separately.
- Enter the code that represents the terminal box type (T) in the box(□) with in the model name. ● Enter the gear ratio in the box(□) within the model name.
- The colored background □ indicates the same rotating direction of the motor while the rotating direction of others are opposite.
- The speed is calculated by dividing the motor's synchronous speed(50Hz: 1500r/ min、60Hz:1800r/min) by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid- gearbox( gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 20N·m.

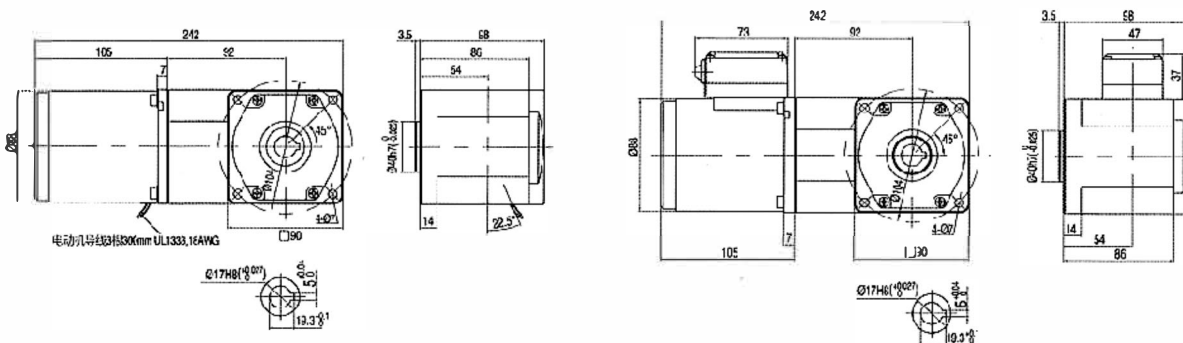
### Allowance Torque Unit: Upside (N. m) / Belowside ( kgf. cm)

Type Motor/ Gearhead	Gear Ratio	Speed r/min	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	
			50Hz	500	417	300	250	200	166	120	100	83	60	50	417	30	25	20	16	15	12	10	8
60Hz	600	500	360	300	240	200	144	120	100	72	60	500	36	30	24	20	18	15	12	10			
5IK40GU-A-□ 5IK40GU-E-□ 5IK40GU-C-□ 5IK40GU-H-□ 5IK40GU-S-□	5GU□RC	Allowance Torque	50Hz	0.57	0.68	0.95	1.14	1.58	1.89	2.63	3.16	3.79	5.26	6.31	6.8	9.5	11.4	14.2	17.0	18.9	20.0	20.0	20.0
			60Hz	5.80	6.96	9.66	11.6	16.1	19.3	26.8	32.2	38.6	53.7	64.4	70	97	116	145	174	193	200	200	200
	5GU□RT		50Hz	0.46	0.55	0.76	0.92	1.27	1.53	2.12	2.55	3.05	4.24	5.09	5.50	7.64	9.16	11.5	13.7	15.3	18.3	20.0	20.0
			60Hz	4.67	5.61	7.79	9.35	13.0	15.6	21.6	26.0	31.2	43.3	51.9	56.1	77.9	93.5	117	140	156	187	200	200

### Induction, reversible Type Drawing

5IK40GU-A/5GU□RC 5IK40GU-E/5GU□RC 5IK40GU-C/5GU□RC  
5IK40GU-H/5GU□RC 5IK40GU-S/5GU□RC

5IK40GU-AT/5GU□RC 5IK40GU-ET/5GU□RC 5IK40GU-CT/5GU□RC  
5IK40GU-HT/5GU□RC 5IK40GU-ST/5GU□RC





# AC ANGEL GEAR MOTOR

**60W**  
**90mm**



## Gear Motor-torque Table

- Gearhead and mid- gearbox can be sold separately.
- Enter the code that represents the terminal box type (T) in the box(□) with in the model name. ● Enter the gear ratio in the box(□) within the model name.
- The colored background □ indicates the same rotating direction of the motor while the rotating direction of others are opposite.
- The speed is calculated by dividing the motor's synchronous speed(50Hz: 1500r/ min、60Hz:1800r/min) by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid- gearbox( gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 20N·m.

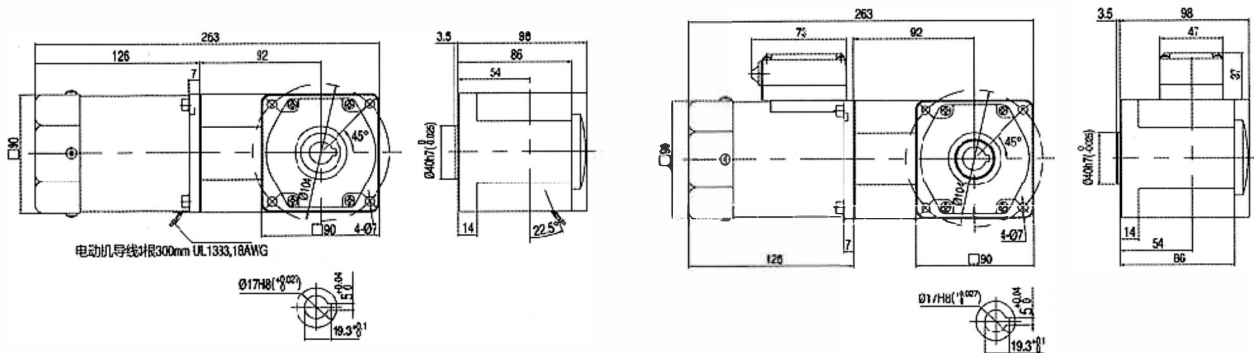
## Allowance Torque Unit: Upside (N. m) / Belowside ( kgf. cm)

Type Motor/ Gearhead		Gear Ratio		3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180			
		Speed r/min	50Hz	60Hz	500	417	300	250	200	166	120	100	83	60	50	417	30	25	20	16	15	12	10	8		
5IK60GU-A□F 5IK60GU-E□F 5IK60GU-C□F 5IK60GU-H□F 5IK60GU-S□F	5GU□RC 5GU□RT	Allowance Torque	50Hz	00.85	1.02	1.42	1.70	2.37	2.84	3.95	4.73	5.68	7.89	9.47	10.2	14.2	17.0	20.4	20.0	20.0	20.0	20.0	20.0	20.0		
			60Hz	8.70	10.4	14.5	17.4	24.2	29.0	40.3	48.3	58.0	80.5	96.6	104	145	174	200	200	200	200	200	200	200	200	
				50Hz	0.69	0.82	1.15	1.37	1.91	2.29	3.18	3.82	4.58	6.36	7.64	8.25	11.5	13.7	17.2	20.0	20.0	20.0	20.0	20.0	20.0	
				60Hz	6.73	8.08	11.2	13.5	19.48	23.37	32.46	38.96	46.75	64.93	77.92	84.1	117	140	175	200	200	200	200	200	200	200

## Induction, reversible Type Drawing

5IK60GU-AF/5GU□RC 5IK60GU-EF/5GU□RC 5IK60GU-CF/5GU□RC  
5IK60GU-HF/5GU□RC 5IK60GU-SF/5GU□RC

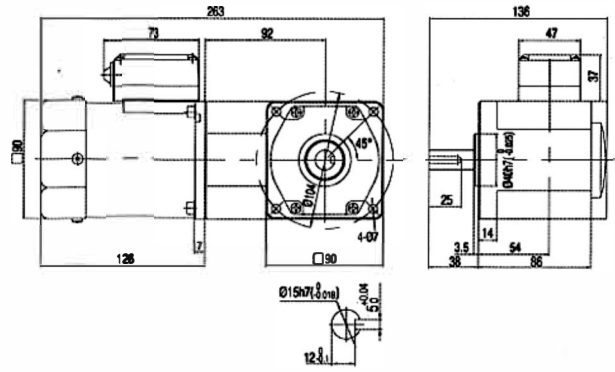
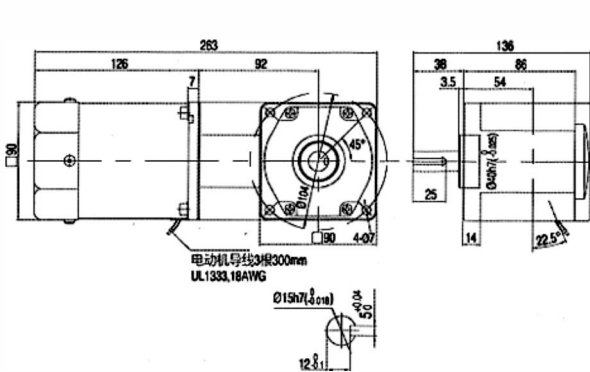
5IK60GU-ATF/5GU□RC 5IK60GU-ETF/5GU□RC 5IK60GU-CTF/5GU□RC  
5IK60GU-HTF/5GU□RC 5IK60GU-STF/5GU□RC



## Induction, reversible Type Drawing

5IK60GU-AF/5GU□RT 5IK60GU-EF/5GU□RT 5IK60GU-CF/5GU□RT  
5IK60GU-HF/5GU□RT 5IK60GU-SF/5GU□RT

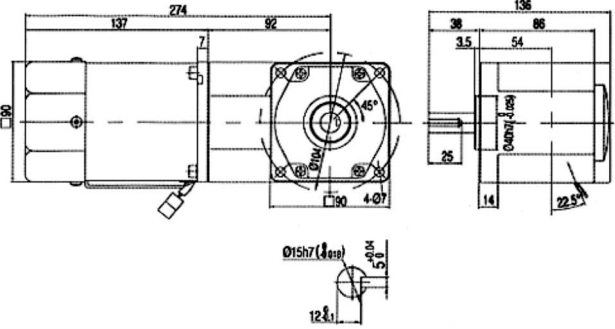
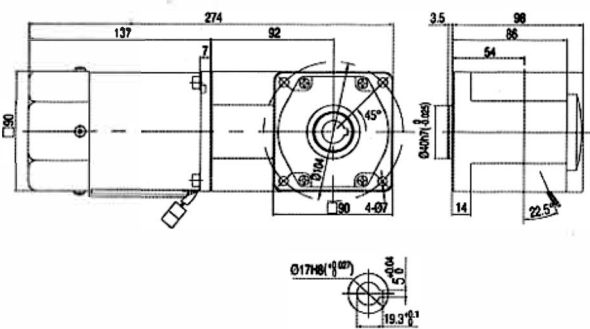
5IK60GU-ATF/5GU□RT 5IK60GU-ETF/5GU□RT 5IK60GU-CTF/5GU□RT  
5IK60GU-HTF/5GU□RT 5IK60GU-STF/5GU□RT



## Speed Control type Drawing

5IK60RGU-AF/5GU□RC 5IK60RGU-EF/5GU□RC  
5IK60RGU-CF/5GU□RC 5IK60RGU-HF/5GU□RC

5IK60RGU-AF/5GU□RT 5IK60RGU-EF/5GU□RT  
5IK60RGU-CF/5GU□RT 5IK60RGU-HF/5GU□RT

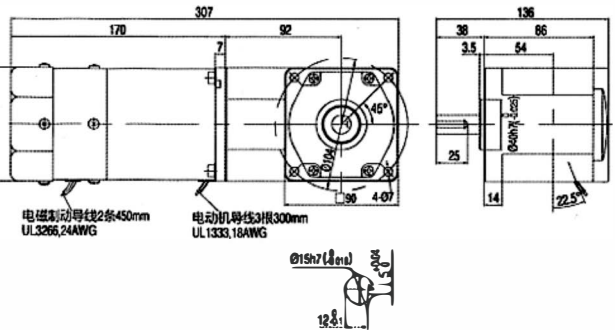
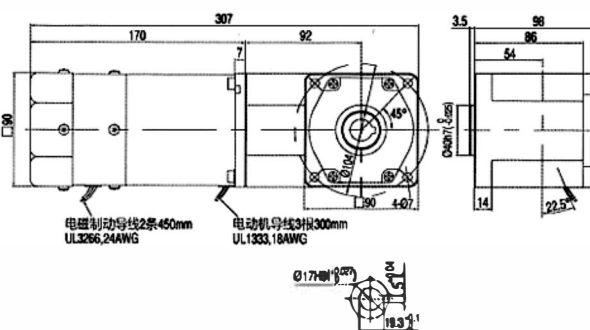


Note: The connector is for FTG standard speed controller

## Brake Type Drawing

5RK60GU-AMF/5GU□RC 5RK60GU-EMF/5GU□RC 5RK60GU-CMF/5GU□RC  
5RK60GU-HMF/5GU□RC 5IK60GU-SMF/5GU□RC

5RK60GU-AMF/5GU□R 5RK60GU-EMF/5GU□R 5RK60GU-CMF/5GU□RT  
5RK60GU-HMF/5GU□R 5RK60GU-SMF/5GU□RT



# AC ANGEL GEAR MOTOR

**90W**  
**90mm**



## ► Gear Motor-torque Table

- Gearhead and mid- gearbox can be sold separately.
- Enter the code that represents the terminal box type (T) in the box(□) with in the model name. ● Enter the gear ratio in the box(□) within the model name.
- The colored background □ indicates the same rotating direction of the motor while the rotating direction of others are opposite.
- The speed is calculated by dividing the motor's synchronous speed(50Hz: 1500r/ min、60Hz:1800r/min) by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid- gearbox( gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 20N·m.

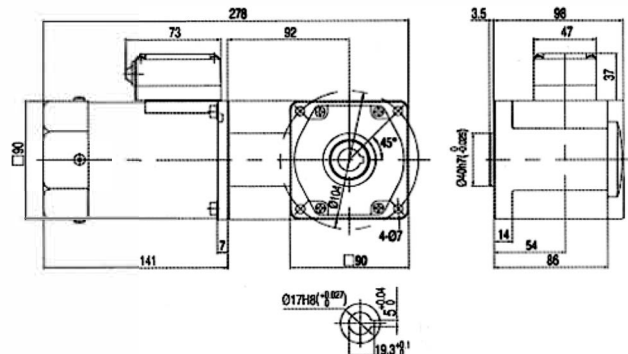
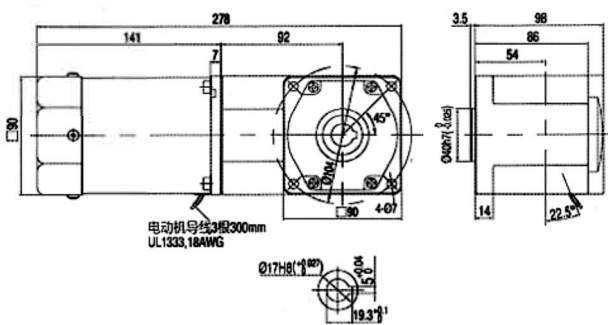
## ► Allowance Torque Unit: Upside (N. m) / Belowside ( kgf. cm)

Type Motor/ Gearhead		Gear Ratio	Speed																						
			r/min		3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	
5IK90GU-A□□ 5IK90GU-E□□ 5IK90GU-C□□ 5IK90GU-H□□ 5IK90GU-S□□	5GU□RC	Allowance Torque	50Hz		1.28	1.53	2.13	2.56	3.55	4.26	5.92	7.10	8.52	11.8	14.2	15.3	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
			60Hz		13.0	15.7	21.7	26.1	36.2	43.5	60.4	72.5	87.0	121	145	157	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
	50Hz		1.03	1.24	1.72	2.06	2.86	3.44	4.77	5.73	6.87	9.54	11.5	12.4	17.2	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	60Hz		10.5	12.6	17.5	21.0	29.2	35.1	48.7	58.4	70.1	97.4	117	126	175	200	200	200	200	200	200	200	200	200	

## ► Induction, reversible Type Drawing

5IK90GU-AF/5GU□RC 5IK90GU-EF/5GU□RC 5IK90GU-CF/5GU□RC  
5IK90GU-HF/5GU□RC 5IK90GU-SF/5GU□RC

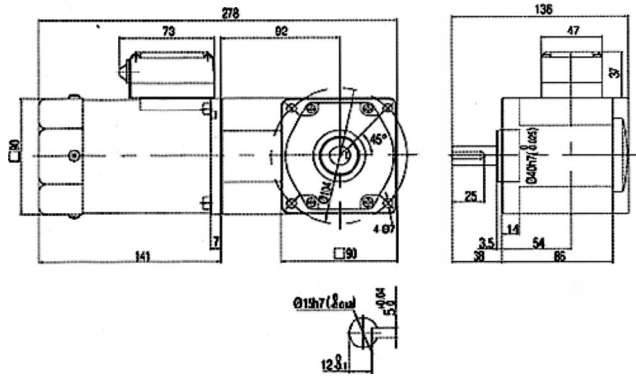
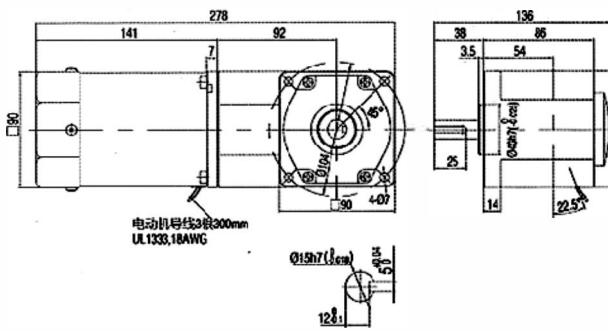
5IK90GU-ATF/5GU□RC 5IK90GU-ETF/5GU□RC 5IK90GU-CTF/5GU□RC  
5IK90GU-HTF/5GU□RC 5IK90GU-STF/5GU□RC



## Induction, reversible Type Drawing

5IK90GU-AF/5GU□RT 5IK90GU-EF/5GU□RT 5IK90GU-CF/5GU□RT  
5IK90GU-HF/5GU□RT 5IK90GU-SF/5GU□RT

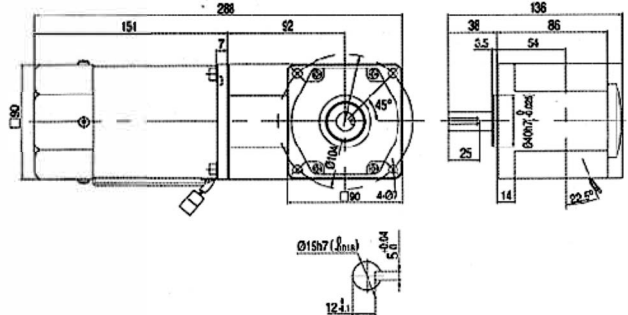
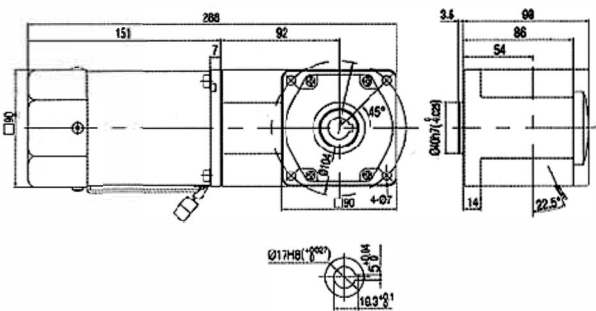
5IK90GU-ATF/5GU□RT 5IK90GU-ETF/5GU□RT 5IK90GU-CTF/5GU□RT  
5IK90GU-HTF/5GU□RT 5IK90GU-STF/5GU□RT



## Speed Control type Drawing

5IK90RGU-AF/5GU□RC 5IK90RGU-EF/5GU□RC  
5IK90RGU-CF/5GU□RC 5IK90RGU-HF/5GU□RC

5IK90RGU-AF/5GU□RT 5IK90RGU-EF/5GU□RT  
5IK90RGU-CF/5GU□RT 5IK90RGU-HF/5GU□RT

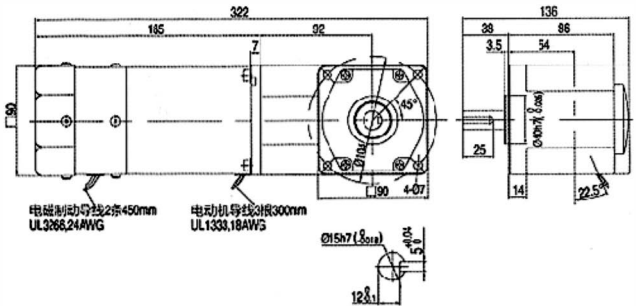
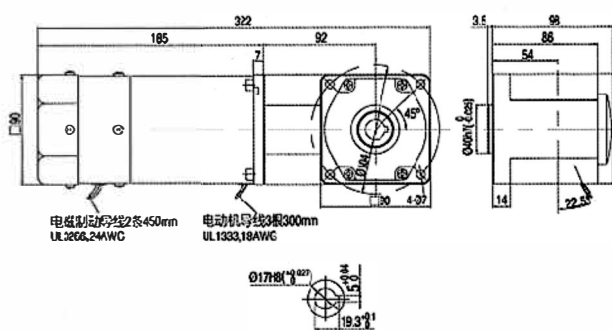


Note: The connector is for FTG standard speed controller

## Brake Type Drawing

5RK90GU-AMF/5GU□R 6RK90GU-EMF/5GU□R 6RK90GU-CMF/5GU□R  
5RK90GU-HMF/5GU□R 6RK90GU-SMF/5GU□R

5RK90GU-AMF/5GU□R 6RK90GU-EMF/5GU□R 6RK90GU-CMF/5GU□R  
5RK90GU-HMF/5GU□R 6RK90GU-SMF/5GU□R



# AC ANGEL GEAR MOTOR

**120W**  
**90mm**



### ► Gear Motor-torque Table

- Gearhead and mid- gearbox can be sold separately.
- Enter the code that represents the terminal box type (T) in the box(□) with in the model name. ● Enter the gear ratio in the box(□) within the model name.
- The colored background □ indicates the same rotating direction of the motor while the rotating direction of others are opposite.
- The speed is calculated by dividing the motor's synchronous speed(50Hz: 1500r/ min、60Hz:1800r/min) by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid- gearbox( gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 20N·m.

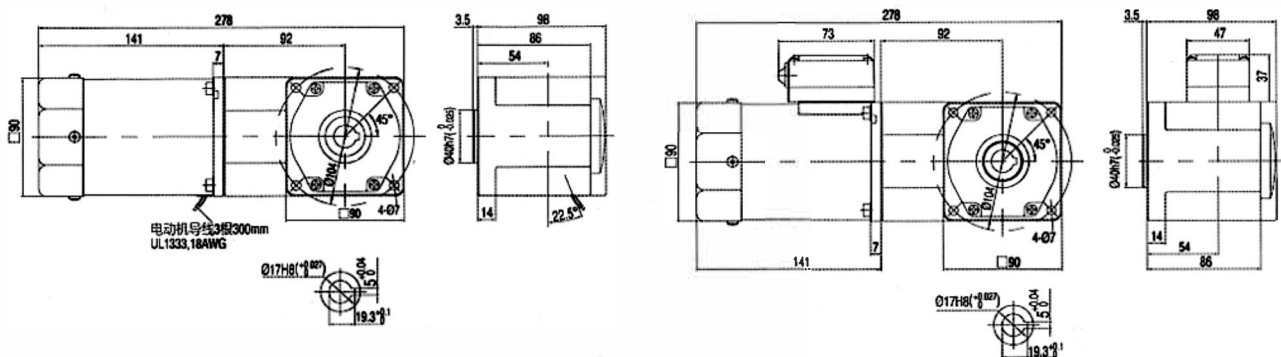
### ► Allowance Torque Unit: Upside (N. m) / Belowside ( kgf. cm)

Type Motor/ Gearhead	Gear Ratio	Speed r/min	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180		
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
5IK120GU-A□F	5GU□RC	50Hz	1.70	2.05	2.84	3.41	4.73	5.68	7.89	9.47	11.4	15.8	18.9	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
5IK120GU-E□F			17.4	20.9	29.0	34.8	48.3	58.0	80.5	96.6	116	161	193	200	200	200	200	200	200	200	200	200	200	200
5IK120GU-C□F		5GU□RT	60Hz	1.37	1.65	2.29	2.75	3.82	4.58	6.36	7.64	9.16	12.7	15.3	16.5	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
5IK120GU-H□F				14.0	16.8	23.4	28.0	39.0	46.7	64.9	77.9	93.5	130	156	168	200	200	200	200	200	200	200	200	200
5IK120GU-S□F																								

### ► Induction, reversible Type Drawing

5IK120GU-AF/5GU□RC 5IK120GU-EF/5GU□RC 5IK120GU-CF/5GU□RC  
5IK120GU-HF/5GU□RC 5IK120GU-SF/5GU□RC

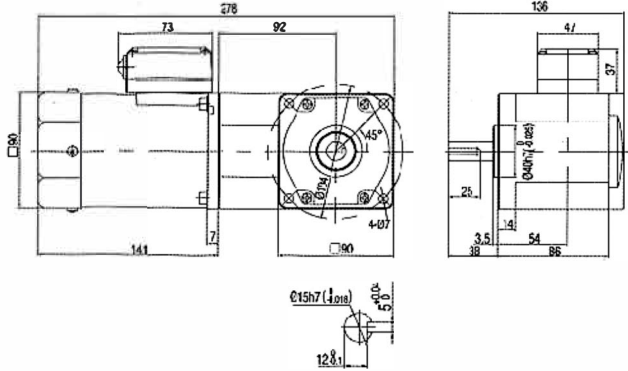
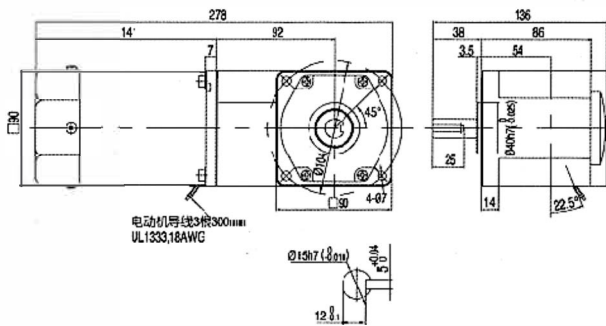
5IK120GU-ATF/5GU□RC 5IK120GU-ETF/5GU□RC 5IK120GU-CTF/5GU□RC  
5IK120GU-HTF/5GU□RC 5IK120GU-STF/5GU□RC



## Induction, reversible Type Drawing

5IK120GU-AF/5GU □ RT 5IK120GU-EF/5GU □ RT 5IK120GU-CF/5GU □ RT  
5IK120GU-HF/5GU □ RT 5IK120GU-SF/5GU □ RT

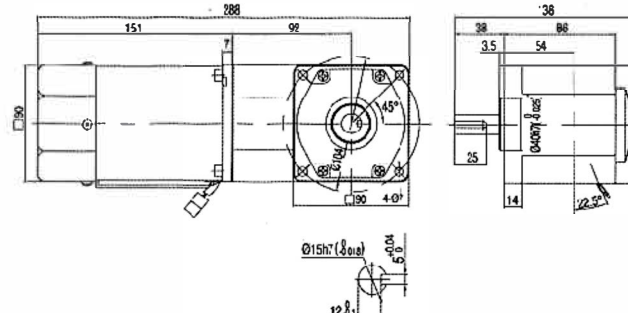
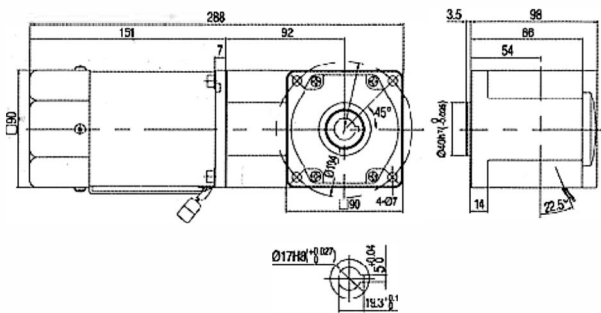
5IK120GU-ATF/5GU □ RT 5IK120GU-ETF/5GU □ RT 5IK120GU-CTF/5GU □ RT  
5IK120GU-HTF/5GU □ RT 5IK120GU-STF/5GU □ RT



## Speed Control type Drawing

5IK120RGU-AF/5GU □ RC 5IK120RGU-EF/5GU □ RC  
5IK120RGU-CF/5GU □ RC 5IK120RGU-HF/5GU □ RC

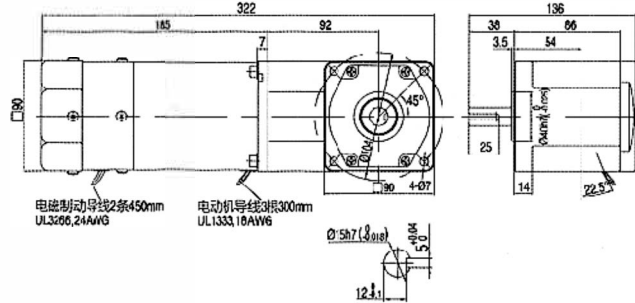
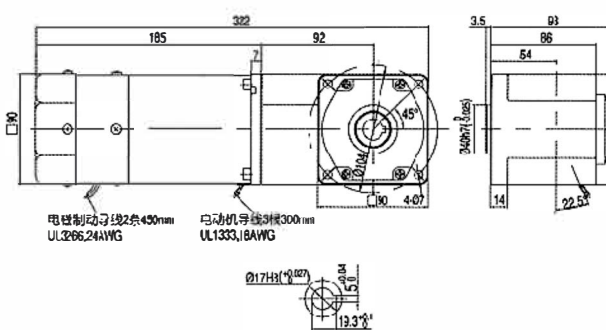
5IK120RGU-AF/5GU □ RT 5IK120RGU-EF/5GU □ RT  
5IK120RGU-CF/5GU □ RT 5IK120RGU-HF/5GU □ RT



Note: The connector is for FTG standard speed controller

## Brake Type Drawing

5RK120GU-AMF/5GU □ RC 5RK120GU-EMF/5GU □ RC 5RK120GU-CMF/5GU □ RC 5RK120GU-AMF/5GU □ RT 5RK120GU-EMF/5GU □ RT 5RK120GU-CMF/5GU □ RT  
5RK120GU-HMF/5GU □ RC 5IK120GU-SMF/5GU □ RC 5RK120GU-HMF/5GU □ RT 5IK120GU-SMF/5GU □ RT



# AC ANGEL GEAR MOTOR

**140W**  
**104mm**



## Gear Motor-torque Table

- Enter the code that represents the terminal box type(T) in the box(□) with in the model name. · Enter the gear ratio in the box(□) within the model name.
- The colored background □ indicates the same rotating direction of the motor while the rotating direction of others are opposite.
- The speed is calculated by dividing the motor's synchronous speed(50Hz: 1500r/ min、60Hz: 1800r/min) by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- the permissible torque is 60N·m.

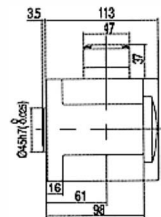
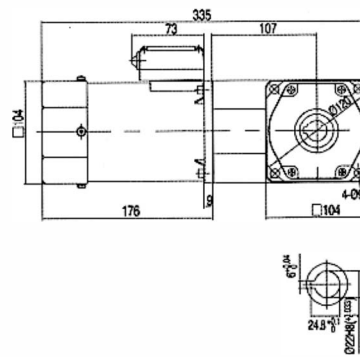
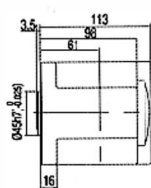
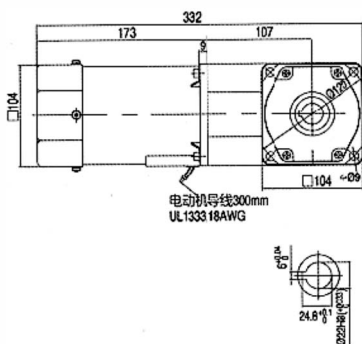
## Allowance Torque Unit: Upside (N. m) / Belowside ( kgf. cm)

Type Motor/ Gearhead	Gear Ratio	Speed r/min	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180			
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
5IK120GU-A□F	5GU□RC	Allowance Torque	1.99	2.39	3.31	3.98	4.97	6.63	9.21	11.0	13.3	18.4	22.1	26.5	33.1	39.8	49.7	59.6	60.0	60.0	60.0	60.0	60.0		
5IK120GU-E□F			20.3	24.3	33.8	40.6	50.7	67.6	93.9	113	135	188	225	271	338	406	507	600	600	600	600	600	600	600	
5IK120GU-C□F			1.60	1.92	2.67	3.21	4.01	5.34	7.42	8.91	10.7	14.8	17.8	21.4	26.7	32.1	40.1	48.1	53.4	60.0	60.0	60.0	60.0	60.0	60.0
5IK120GU-H□F																									
5IK120GU-S□F			5GU□RT	60Hz	16.4	19.6	27.3	32.7	40.9	54.5	75.8	90.9	109	152	182	218	273	327	409	491	545	600	600	600	600

## Induction, reversible Type Drawing

6IK140GU-AF/6GU□RC 6IK140GU-EF/6GU□RC 6IK140GU-CF/6GU□RC  
6IK140GU-HF/6GU□RC 6IK140GU-SF/6GU□RC

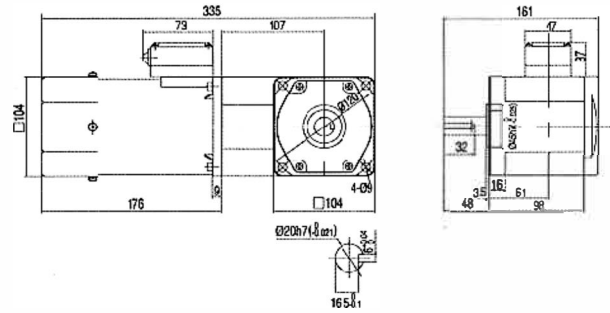
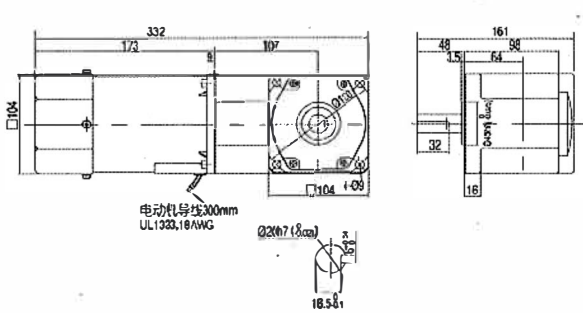
6IK140GU-ATF/6GU□RC 6IK140GU-ETF/6GU□RC 6IK140GU-CTF/6GU□RC  
6IK140GU-HTF/6GU□RC 6IK140GU-STF/6GU□RC



## ▶ Induction, reversible Type Drawing

6IK140GU-AF/6GU □ RT 6IK140GU-EF/6GU □ RT 6IK140GU-CF/6GU □ RT  
6IK140GU-HF/6GU □ RT 6IK140GU-SF/6GU □ RT

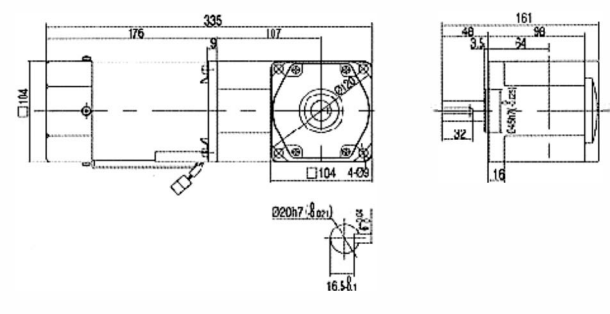
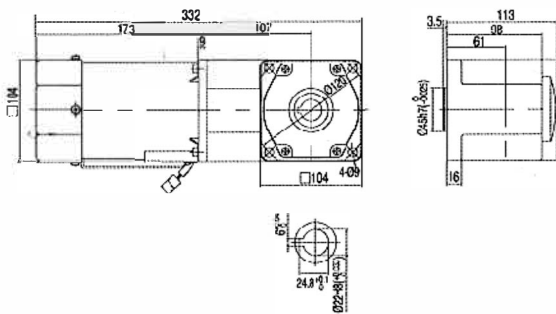
6IK140GU-ATF/6GU □ RT 6IK140GU-ETF/6GU □ RT 6IK140GU-CTF/6GU □ RT  
6IK140GU-HTF/6GU □ RT 6IK140GU-STF/6GU □ RT



## ▶ Speed Control type Drawing

6IK140RGU-AF/6GU □ RC 6IK140RGU-EF/6GU □ RC  
6IK140RGU-CF/6GU □ RC 6IK140RGU-HF/6GU □ RC

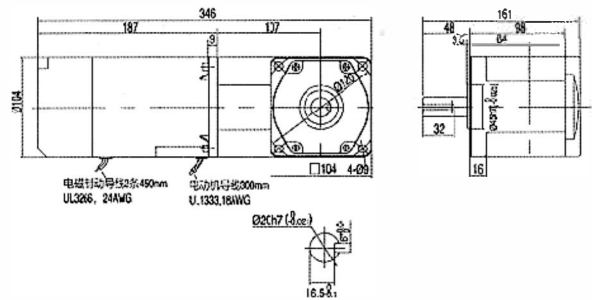
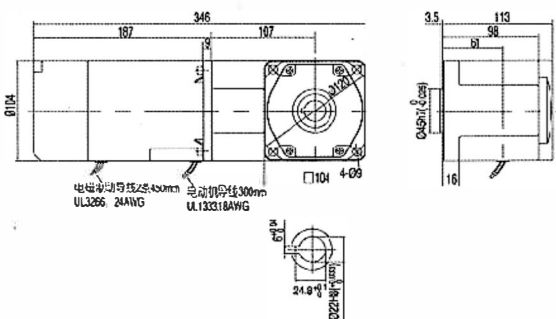
6IK140RGU-ATF/6GU □ RT 6IK140RGU-ETF/6GU □ RT  
6IK140RGU-CTF/6GU □ RT 6IK140RGU-HTF/6GU □ RT



Note: The connector is for FTG standard speed controller

## ▶ Brake Type Drawing

6RK140GU-AM/6GU □ RC 6RK140GU-EM/6GU □ RC 6RK140GU-CM/6GU □ RC 6RK140GU-AM/6GU □ RT 6RK140GU-EM/6GU □ RT 6RK140GU-CM/6GU □ RT  
6RK140GU-HM/6GU □ RC 6RK140GU-SM/6GU □ RC 6RK140GU-HM/6GU □ RT 6RK140GU-SM/6GU □ RT



# AC ANGEL GEAR MOTOR

**180W**  
**104mm**



## Gear Motor-torque Table

- Enter the code that represents the terminal box type(T) in the box(□) with in the model name. · Enter the gear ratio in the box(□) within the model name.
- The colored background □ indicates the same rotating direction of the motor while the rotating direction of others are opposite.
- The speed is calculated by dividing the motor's synchronous speed(50Hz: 1500r/ min、60Hz: 1800r/min) by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- the permissible torque is 60N·m.

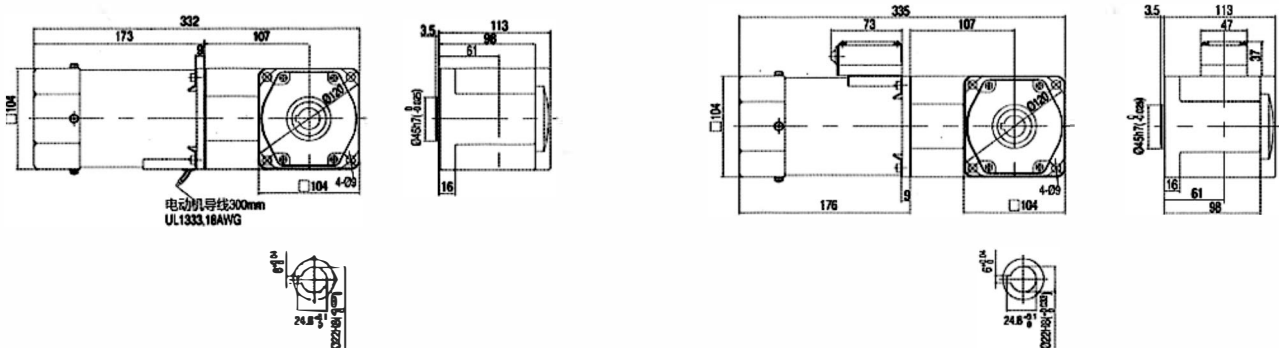
## Allowance Torque Unit: Upside (N. m) / Belowside ( kgf. cm)

Type Motor/ Gearhead	Gear Ratio	Speed r/min	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180		
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
6IK180GU-A□F	5GU□RC	50Hz	2.56	3.07	4.26	5.11	6.39	8.52	11.8	14.2	17.0	23.7	28.4	34.1	42.6	51.1	60.0	60.0	60.0	60.0	60.0	60.0	60.0	
6IK180GU-E□F			26.1	31.3	43.5	52.2	65.2	87.0	121	145	174	242	290	348	435	522	600	600	600	600	600	600	600	
6IK180GU-C□F		5GU□RT	60Hz	2.06	2.47	3.44	4.12	5.15	6.87	9.54	11.5	13.7	19.1	22.9	27.5	34.4	41.2	51.5	60.0	60.0	60.0	60.0	60.0	60.0
6IK180GU-H□F				21.0	25.2	35.1	42.1	52.6	70.1	97.4	117	140	195	234	280	351	421	526	600	600	600	600	600	600
6IK180GU-S□F																								

## Induction, reversible Type Drawing

6IK180GU-AF/6GU□R6IK180GU-EF/6GU□R6IK180GU-CF/6GU□RC  
6IK180GU-HF/6GU□R6IK180GU-SF/6GU□RC

6IK140GU-ATF/6GU□R6IK140GU-ETF/6GU□R6IK140GU-CTF/6GU□RC  
6IK140GU-HTF/6GU□R6IK140GU-STF/6GU□RC

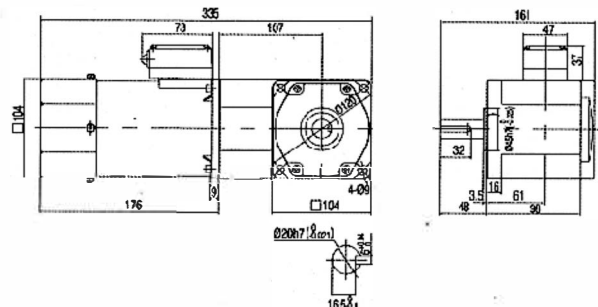
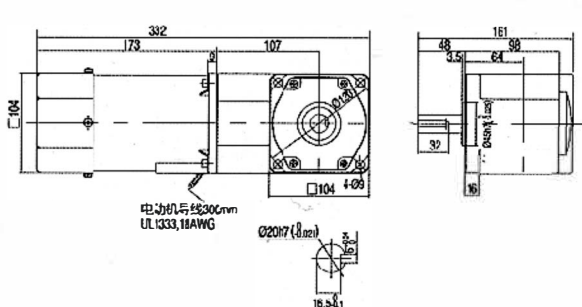




### Induction, reversible Type Drawing

6IK180GU-AF/6GU□RT 6IK180GU-EF/6GU□RT 6IK180GU-CF/6GU□RT  
6IK180GU-HF/6GU□RT 6IK180GU-SF/6GU□RT

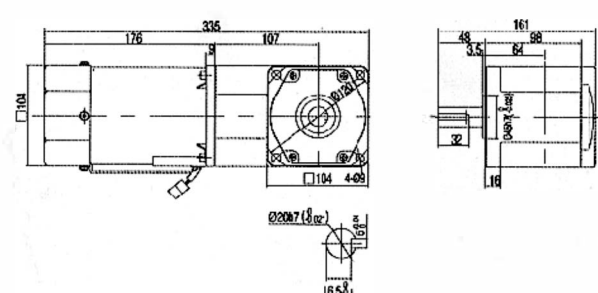
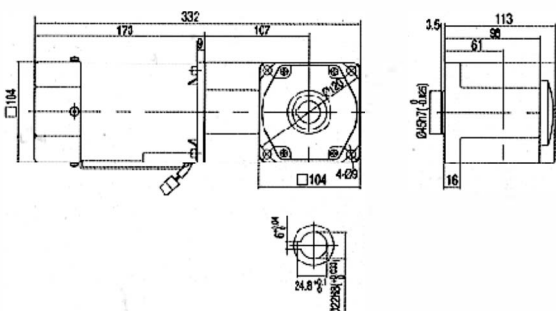
6IK180GU-ATF/6GU□RT 6IK180GU-ETF/6GU□RT 6IK180GU-CTF/6GU□RT  
6IK180GU-HTF/6GU□RT 6IK180GU-STF/6GU□RT



### Speed Control type Drawing

6IK180RGU-AF/6GU□RC 6IK180RGU-EF/6GU□RC  
6IK180RGU-CF/6GU□RC 6IK180RGU-HF/6GU□RC

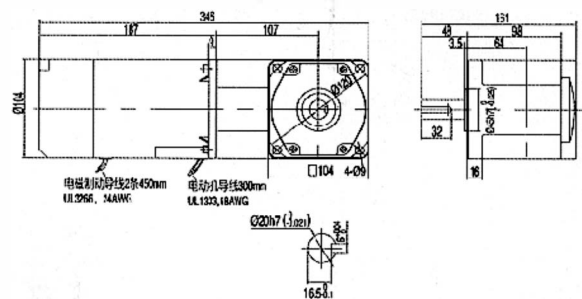
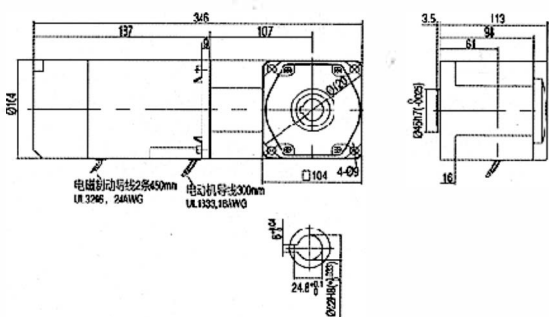
6IK180RGU-AF/6GU□RT 6IK180RGU-EF/6GU□RT  
6IK180RGU-CF/6GU□RT 6IK180RGU-HF/6GU□RT



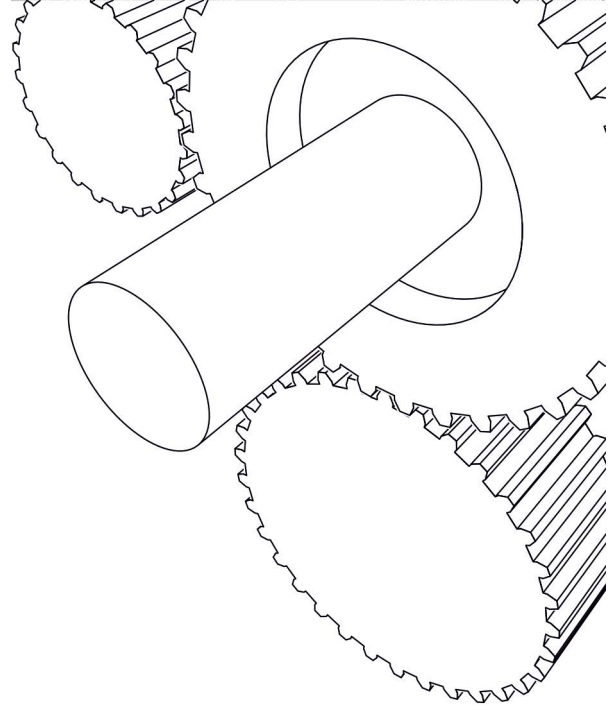
Note: The connector is for FTG standard speed controller

### Brake Type Drawing

6RK180GU-AM/6GU□RC 6RK180GU-EM/6GU□RC 6RK180GU-CM/6GU□RC 6RK180GU-AM/6GU□RT 6RK180GU-EM/6GU□RT 6RK180GU-CM/6GU□RT  
6RK180GU-HM/6GU□RC 6RK180GU-SM/6GU□RC 6RK180GU-HM/6GU□RT 6RK180GU-SM/6GU□RT



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**POWERTEK**  
G E A R

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